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CALFED Water Transfer Element

Draft Discussion Paper No. 1 - Transferable Water

Issue/Question

The major definitional issue is: What constitutes transferable water? There are a number of more specific issues which derive from that question. For example:
a. In the context of transfers of saved or conserved water, what is the definition of consumptive use?
b. Can water quality improvements or changes in flow timing be used as a measure of transferable water?
c. Under what circumstances can riparian water be transferred?
d. What are the rules for transfers of pre-1914 water?
e. What is the significance for transferability of the distinction between water held under water right and water held under settlement contract?
f. What are the rules for determining whether water proposed for transfer is available at the time of the transfer?
g. Does the current water transfer system encourage consumptive use of water which would not otherwise occur?

Background

The question of what is transferable water depends on the physical source of the water, the underlying water right or legal entitlement to the water, and the type of transfer. Physically, the water is either surface water, ground water, or reclaimed waste water. Water rights or legal entitlements include: riparian and pre-1914 rights, appropriative rights, various types of contract entitlements, overlying ground water rights, and appropriative ground water rights.

There are several types of water transfers: transfer of surface water through groundwater substitution; direct groundwater transfer; transfer based on reductions in consumptive use through crop fallowing or crop shifting; transfer of stored water; transfer of treated wastewater; transfer for instream use; transfer of CVP water under CVPIA; and transfer of saved or conserved water by reduction of irrecoverable losses to saline sinks or "undesirable" vegetation, or other reductions in evapotranspiration.

This paper will not address transfers of reclaimed waste water, groundwater, or transfers for instream uses under Water Code section 1707. This paper will focus on transfers of surface water.

Applicable Law

California Water Code sections 109 and 475 establish state policy regarding water transfers.

Water Code sections 484 and 1725 suggest that transferable water is water that would have been consumptively used or stored by the transferor, the transfer of which will not injure any legal user of water, and which will not unreasonably affect fish, wildlife, or other instream beneficial uses.

Water Code section 484 says that temporary transfers of water do not prejudice the transferor's future right to the use of the transferred water and defines consumptively used water as water "which has been consumed by use through evapotranspiration (ET), has percolated underground, or has been otherwise removed from use in the downstream water supply as a result of direct diversion."

Water Code section 1011(b) provides that water, or the right to the use of water, the use of which has ceased or been reduced as the result of conservation may be sold, leased, exchanged or otherwise transferred.

Water Code section 1725 provides that a permittee or licensee may change the place of use (i.e., transfer) water "if the transfer would only involve the amount of water that would have been consumptively used or stored by the permittee or licensee in the absence of [the transfer], would not injure any legal user of the water, and would not unreasonably affect fish, wildlife or other instream beneficial uses. For purposes of this article, 'consumptively used' means the amount of water which has been consumed through use by evapotranspiration, has percolated underground, or has been otherwise removed from use in the downstream water supply as a result of direct diversion."

Water Code sections 1745.04 and 1745.05 provide that a water supplier may transfer water from storage, water made available by crop shifting or fallowing, or water made available by "conservation or alternative water supply measures ...".

Collectively, these provisions establish a clear policy and legal authority for water transfers based on conservation and reductions in consumptive use. However, they leave open the question of what is meant by consumptive use in determining what constitutes transferable water. In particular, they leave open the question whether an improvement in application efficiency which reduces tail water, return flows or percolation to usable groundwater is a reduction of consumptive use, and therefore creates transferable water. Similarly, the statutes do not address the question whether other interpretations of consumptive use might broaden the scope of what constitutes transferable water.

Discussion

a. The first specific issue in the general area of transferable water issues is the question of what is meant by "consumptive use" in the context of transfers of saved or conserved water. There is a difference of opinion as to what constitutes transferable water under California water law when the transfer is based on saved or conserved water because there are different interpretations of the term "consumptive use".

Some stakeholders argue that the traditional definition of "consumptive use" is too narrow and effectively precludes a transfer of saved or conserved water as defined by Water Code section 1011(b). The stakeholder argument is that the narrow definition of consumptive use effectively limits transferable water to reductions in ET (which can only be accomplished by fallowing or crop changes) and reductions in percolation to unusable groundwater (which occurs only in a few geographic areas of the state).

Stakeholders do not dispute that the law allows the transfer of water held under right (including permit, license or contract) only if that water would otherwise be consumptively used, and subject to the "no injury" and "no unreasonable affect" rules. However, some argue for a broader interpretation of reduction in consumptive use, e.g., to include reduction in application of water, improvement in application efficiency and reductions in tail water, return flow or water which would percolate to usable groundwater.

Over the past several years, water suppliers generally have been encouraged by state law to adopt and implement water conservation plans. CVP contractors are required by federal law to adopt and implement such plans. The public policy intent behind water conservation is that reductions in applied water and improvements in application efficiency will make the saved or conserved water available for other beneficial uses. But if saved or conserved water is not transferable water, there is little, if any, financial incentive to adopt and implement conservation measures. Additionally, there is a concern that conservation measures may actually create a risk to water rights or contract rights to water, if the saved/conserved water is not continually and regularly put to beneficial use.

In DWR's 1993 publication "Water Transfers in California, Translating Concept into Reality, there is a discussion of conserved water transfers in the Sacramento Valley. A key point is that "... new water can be created only by reducing losses to unusable water bodies (rare in the Sacramento Valley), reducing surface outflow during periods of excess Delta outflow, reducing consumptive use of crops, or environmentally acceptable reductions

in consumptive use of non-agricultural vegetation. Reducing percolation to groundwater depletes another part of the system and can penalize other users (by direct reduction of ground water supplies, decreasing groundwater discharge to surface streams or increasing percolation from surface supplies to groundwater. Reducing drainage outflow during the irrigation season merely reduces the supply available downstream".

"New water" is defined as water not previously available in the system, created by reducing irrecoverable losses or flow to unusable water bodies. New water must also be "real water" which is defined as water not derived at the expense of any other lawful water user. ("Real water" is generally synonymous with "wet water".) "Real" or "wet" water must be distinguished from "paper" water which is water that does not create any increase in the water supply, such as water under right but not historically used or tailwater or return flows.

In summary, the basic problem is that given the strict and traditional interpretation of "consumptive user", the amount of transferable water which can be generated by saving or conserving is very limited. This would appear to be inconsistent with the broader state policy of encouraging conservation by making conserved water transferable, thus creating additional economic incentives for conservation measures.

Options for resolution of this issue

It has been suggested that one way to resolve the question of what constitutes transferable water based on conservation measures is to put the decision in the hand of some entity other than the project operators, perhaps the State Water Resources Control Board.

It has also been suggested that a standardized set of policies and rules on transferable water generally, agreed to by USBR, DWR and the State Board, would be helpful in clarifying the agencies' interpretations of the legal requirements for stakeholders.

Alternatively, if the problem is that the existing law is not clear on this point, then the law should be amended to state clearly the circumstances under which saved or conserved water is transferable.

Finally, there may be other interpretations of consumptive use based on a variation of what constitutes an "irrecoverable loss". This idea will be explored in more detail in the following section.

b. The second specific issue raised by the question what constitutes transferable water is whether there are other interpretations of consumptive use or irrecoverable loss which would might be applied. For example, if improvements in receiving water quality or changes in flow timing can be incorporated into the ideas of consumptive use and irrecoverable loss, the volume of water available for transfer might be expanded without impairment to the rights of downstream users or environmental values.

[Insert Tom G's paper here]

c. The third specific subissue is the circumstances or rule under which riparian water can be transferred. Historically, riparian water is considered appurtenance of the land and cannot be transferred apart from the land. However, there have been cases in which a riparian user has agreed for payment to not divert water in exchange for payment. The water was then used for some other downstream purpose. This approach will normally only work if there are no intervening diverters between the riparian diversion and the downstream use. There is no legal basis to preclude an intervening diverter from using water that has been bypassed by a riparian (assuming the intervening diverter has a right to divert at that time and place).

There has been a suggestion that a set of rules for transfers of riparian water would be useful in addressing this problem. This would require a mechanism to quantify the amount of the transfer and a way to ensure that the riparian then reduced his/her diversion by a corresponding amount. It also requires a way to protect the riparian between the bypass point and the place of intended use.

A corollary issue to this problem is whether the State Water Resources Control Board should be given some jurisdiction over riparian water in order to develop and enforce such rules.

d. The fourth subissue is whether additional rules are needed for transfers of pre-1914 water and whether or to what extent the State Board should be given jurisdiction over such transfers.

e. The fifth subissue arises out of the fact that some water rights settlement contracts in the Sacramento Valley provide for the contractors' use of water which may exceed the amount of water they hold under right (riparian, pre-1914 or appropriative). This can lead to questions about whether the water proposed for transfer would be available at the time and in the quantity proposed in the absence of the settlement contract. This goes to the question of when and to what extent USBR approval may be needed for transfers

of such water. If the water is truly water rights water, then presumably USBR approval is not necessary. If the water is water which is only available as a function of the settlement contract, then USBR approval is required as a condition of the contract.

f. The sixth subissue has arisen because of a concern that a water user may feel compelled to increase his/her consumptive use of water over historical amounts in order to "qualify" as much water as possible for potential transfer. This situation will generally arise when a water user holds a right to use water which exceeds the historical use. The water user clearly has a legal right to the use of the water, but under the traditional rules of "real water vs paper water", the water user will not be allowed to transfer water which has not been consumptively used in the past.